as a variety of *galliformis* which I believe to be a good species. *Arizonensis* is separable from *cuerœnsis* by its smaller size with distinct deep transverse brown bands with pits at intervals, and distinctly marbled with light brown. It is the second species of *Kermes* to be recorded from Arizona.

Since the publication of my paper on the *Genus Kermes of North America* in Psyche, vol. 9, p. 78-84, 1900, one other species has been described, viz. : *Kermes trinotatus* Bogue, taken at Stillwater, Oklahoma, on *Quercus nigra* and also found at Albany, N. Y., New Brunswick, N. J., and Atlanta and Tifton, Georgia, on *Quercus aquatica*. *K. pittiti* Ehrh. and *K. galliformis* Riley, have been recorded from Middletown and Brooklyn, N. Y. *Kermes andrei* King, has been found by Prof. Scott at Atlanta, Georgia, on *Q. stellata* and just recently I have received for identification from Prof. Cockerell, June 24, 1902, *Kermes pubescens* Bogue on *Q. macrocarpa*, and *K. andrei* King, on *Q. prinus* found at Columbus, Ohio, by Mr. J. A. Sanders, Westville, Ohio.

The following literature has also appeared :

Canadian Entomologist, vol. 32, p. 205, 1900, gives the description of *Kermes trinotatus* Bogue.

Bull. No. 26 N. Sr. U. S. Dept. of Agr., div. of Entom., p. 52, 1900, the species cited as a new species is *K. andrei* King.

Bull. N. Y. State Museum, No. 46, vol. 9, p. 356, 1901.

Some Notes and Descriptions of Three New Leptidae.

By Chas. W. Johnson.

Rhachicerus nitidus n. sp.

♂ ♀.—Face and front black, shining, except a patch of silvery white pubescence above the base of the antennæ and between the emarginations of the eyes, the indentation shining black ; antennæ black composed of 22 joints, not pectinate in the ♀, and only slightly pectinate in the ♂, mouth parts yellowish. Thorax and abdomen black, shining, with yellowish microscopic hairs ; humeri dull yellow ; halteres and legs light yellow, the posterior tarsi somewhat brownish. Wings grayish hyaline, stigma brown, with a brownish tinge below, most conspicuous in the ♀. Length, 6 mm.

Two specimens, bred June 2, from larvæ obtained in a decayed log at Overbrook, near Philadelphia, Pa., April 17.

Larva yellowish-white and similar in general appearance to that of *Xylophagus abdominalis*, but much smaller (8 mm.). Pupa reddish brown, the antennal processes proportionately larger and curving backwards with a small anterior projection at the base of each, extending toward the center, but hardly meeting.

Xylophagus abdominalis Loew.

On March 20, 1897, I obtained at Riverton, N. J., from beneath the bark of a dead pine, in the early stages of decay, half a dozen larvæ, which proved, on reaching maturity (April 5) to be *X. abdominalis* described from Texas. Being placed in a small glass jar two of the larvæ pupated in a few days; while two showed their carnivorous habits by thrusting their sharp mouth parts into the other two. This act of cannibalism was probably forced upon them by being confined in such close quarters with no other food, as they usually feed on various wood-eating larvæ. The larvæ were represented by two sizes, the larger, which proved to be the ♀, was about 21 mm. in length, while the smaller, which developed into a male, was only 16 mm. Larva white, cylindrical, composed of twelve segments (including the head) and covered with a thin parchment-like skin; the three segments back of the pointed black head are chitinized above; entire in one, in others divided into two or three squares; the last segment has a chitinized plate above, terminating in two hook-like processes; at the bases of the fourth to the ninth segments are rows of transverse bristly pseudopods; similar rows of bristles are also present above; on the sides in the middle of each segment are tufts of three or four white hairs. (Fig. 1.)

FIG. 1.

FIG. 2.

Pupa horn-color, the anterior end bearing prominent, annulated, antennal processes, while below the developing mouth-parts are also visible; on the thoracic section the developing wings and legs are folded on

the sides and breast as distinctly as in a lepidopterous pupa ; the abdominal portion consists of seven segments, which have basal and sub-central rows of bristles, and dark brown shining spiracle nodes ; the end of the terminal segment is bispinose, with spine-like bristles on the sides. Length, ♀, 17 mm. ; ♂, 13 mm. (Fig. 2.)

Loew's description was based on a ♀, with which the New Jersey specimens agree in every respect except that only the second, third and fourth segments are red, the fifth being black ; a specimen from Michigan also has the fifth segment black. Length, 15 mm.

The male, which has not been described, differs from the female in having the abdomen entirely black and measuring only 11 mm. in length.

Xylophagus lugens Loew, was also bred from larvæ found in decayed oak and chestnut ; they resemble those of *X. abdominalis* except that one less segment is chitinized. The pupa has the antennal processes more recurved, lying close to the side of the cephalic portion, with a short hook-like spine, extending laterally from the base of each.

Xylomyia americana Wied., and **Xylomyia tenthredinoides** v. d. Wulp.

Xylophagus americanus Wied. Dipt. Exot. i, 51 ; auss. zw. i, 84.

Subula tenthredinoides v. d. Wulp. Tijdschr. voor. Entom. ii, 2 ser. 132, Tab. iii, f. 5.

On June 1 Mr. E. Daecke captured at Castle Rock, Delaware Co., Pa., a number of Xylomyiæ which has lead me to make a more careful study of the descriptions of *X. americana* and *X. tenthredinoides*. The specimens all lack a distinctive feature clearly given by Wiedeman, viz. : Middle of the first segment black, sides yellow ; the second and third segments red, with a posterior margin of yellow, in front of which is a short transverse line of black ; the remainder of the segments red, margined posteriorly with yellow. A ♀ collected by Mr. Chas. A. Voelker, at Clifton, Delaware Co., Pa., and a ♂ from Mr. R. J. Weith, Elkhart, Ind., agree with Weidman's description.

Xylomyia tenthredinoides has the first segment entirely black, or with the posterior half reddish and the remaining segments red without the yellowish posterior margin. In the ♀ a blackish lateral margin extends from the first to the fifth segments,

evanescent on the latter; the outer half of the posterior femora and tibiæ are dark brown or black; on the dorsum of the thorax the two clearly defined yellow lines and lateral spots are wanting, while the humeri in the ♀ is black. Besides the specimens collected by Mr. Daecke, I have a specimen (♀) from Dr. W. A. Nason, Algonquin, Ill., June 9, and one (♂) collected at Natrona, Pa., July 12. The two species which have been united by Loew (Zeits. f. Ges. Naturw. xxxvi, 114) seem to be readily separated by the above characters.

Xylomyia aterrima n. sp.

♂, ♀.—Black, somewhat shining; a spot on each side above the base of antennæ and the frontal and facial orbits, whitish pubescent; antennæ black. Humeri, a lateral line extending to the base of the wing, post-alar callosities, middle of the scutellum, and a spot on each side of the metanotum (in the male) yellow. Halteres yellow with a brown spot at the base of the knob. In the male there is a slight trace of a posterior margin of dark brown on the segments of the abdomen. Legs variable, in the male the first and middle femora and tibiæ are yellow and in the female dark brown; hind femora of the female entirely black, basal half yellow in the male; outer half of the posterior tibiæ black; tarsi brown, basal half of the posterior metatarsi yellow; coxæ black, the posterior half yellow; in the male a greenish yellow tint seems to predominate. Wings brownish hyaline. Length, 12 mm.

The two specimens on which this description is based have been in my collection for a number of years. The ♂ from "N. Ill." was given me by the late Andrew Bolter, and the ♀ from Franconia, N. H., was collected by Mrs. Annie T. Slosson. I feel confident that a number of specimens would eliminate all discrepancies.

Symphoromyia cinerea n, sp.

♂, ♀.—Entire body dull gray or ash-color, with short whitish and longer blackish pile, and with the lighter colored pile predominating in the male. Antennæ reddish or brown, the first joint moderately enlarged, grayish with long white and black hairs in the male, and short black hairs in the female, the small second joint noticeably darker than the others, third joint comparatively small in the male, no wider than the first joint, and in the female but slightly wider, aristæ black, mouth parts yellowish. Thorax with three obscure brownish stripes, the wide dorsal stripe divided anteriorly by a fine hair line, the sub-dorsal stripes divided at the suture forming two oblong spots, a small obsolete spot, also present above the base of the wing. Legs yellowish, all except the metatarsi dark brown,

femora more or less brownish, especially in the male, halteres light yellow. Wings grayish hyaline, the stigma pale yellow, veins dark brown. Length, ♂, 5 mm.; largest ♀, 6 mm.

In woods at Goose Neck, Shrewsbury River, near Long Branch, N. J., June 9-12, 1902.

Vernacular Names Again.

By J. Chester Bradley.

Dr. Doran's interesting article in the November issue of the Ent. News, while of value in its aim to secure better English in writing vernacular names, has suggested to me the real absurdity of these names themselves. The aim of science is to be precise, and precision in designating an insect is amply secured by our system of latin nomenclature, with which the entomologist should rest content, using only such vernacular names for the lay understanding as have been thoroughly established by popular usage, and should not himself try to coin vernacular names for the masses to accept. Such words as mud-wasp, blister-beetle, potato-bug, bumble-bee and others that popular usage has sanctioned as good English words, are never in danger of being abused. But when the Entomologist tries to coin them he generally makes a dismal failure. Certainly anybody who is able to learn what insects are meant by such terms as *raspberry gouty gall beetle*, *red necked blackberry gall maker*, *red humped apple tree caterpillar*, and numerous others, will experience no greater difficulty in learning their only precise names—the latin ones—and to a person who is not acquainted with the insects meant, the names must seem absurd in the extreme. "What," such a one might wonder, "are the red necked blackberries, the red humped apple trees, and is the raspberry beetle truly afflicted with gout?"

Dr. Skinner calls my attention to the fact that Strecker described a Chalcid—*Smicra bimaculata*—in the Annual Rep. on Explor. and Surv., Dept. of the Missouri (Appendix SS to Rep. Chief Engineers for 1878). This species has heretofore escaped the notice of our cataloguers and recorders. Where is the type?—J. Chester Bradley.